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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,530	11/03/2000	Joseph Moshe	MOSHE 1	4535

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EXAMINER

WANG, TED M

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/704,530

Applicant(s)

MOSHE ET AL.

Examiner

Ted M Wang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see paper # 7, filed on March 4, 2004, have been fully considered and the amended Independent claims 1 and 7 have been reexamined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Mann et al. (PT5,251,210).

- In regard claim 1, Mann et al. cited by the instant applicant discloses a method for transforming low bandwidth telecommunications channels into a high bandwidth telecommunication channel having a first bandwidth capacity and operative at a first transmission rate (Fig.1, 2, and 3, and column 5 line 52 – column 6 line 9, column6 lines 16-34, column 7 lines 3-19) comprising the steps of: providing one or more input bit streams each having a transmission rate that does not exceed that of said first transmission rate (column 5 line 52 – column 6 line 9 and column6 lines 16-34); wherein at least one of said one or more input streams has a plurality of overhead bits associated therewith (Fig.1 and column 4 line 35 – column 5 line 40); dividing said one or more input bit streams into a

plurality of sub-streams, each having a bandwidth lower than said first bandwidth capacity (Fig.1, 2, 3, and 5, and column 7 lines 20-52); selecting a group of sub-streams out of said plurality of sub-streams (Fig.3 element 20 and Fig.7, and column 8 line 17-50), which group has a combined bandwidth just lower than said first bandwidth capacity (column 5 line 52 – column 6 line 9); and wherein said group comprises at least one sub-stream which comprises at least some of said plurality of overhead bits (Fig.1 and column 4 line 35 – column 5 line 40); carrying said selected group of sub-streams over said transmission channel (Fig. 2 , 3 element 20, and Fig.7 and column 5 line 52 – column 6 line 9); and assembling said selected group of sub-streams into an output bit stream (Fig. 2 , 3 element 20, and Fig.7 and column 15 line 39 – column 16 line 15).

- In regard claim 3, the limitation that selecting step is performed by determining said group of sub-streams such as to minimize wasted bandwidth of said first bandwidth capacity can further be taught in column 5 line 52 – column 6 line 9.
- In regard claim 7, which is a system claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

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matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mann et al. (PT5,251,210) in view of Castellano et al. (PT5,065,396).

- In regard claim 2, Mann et al. cited by the instant applicant discloses all limitation except specifically teaching that the limitation that the dividing step is performed using an inverse multiplexing technique producing plurality of substreams and overhead bits.

Castellano et al. cited by the instant applicant discloses a method of inverse multiplexer and demultiplexer techniques that the dividing step is performed using an inverse multiplexing technique producing plurality of substreams and overhead bits (Fig.7 and ABSTRACT lines 1-19) in order to economically send their higher data rate signal over existing lower data rate telecommunication networks, and thereby avoid constructing expensive specialized high data rate long or short haul networks, or expensive specialized data rate converters, and provide for a more economic use of the unused capacity of existing networks.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mann's method in view of Castellano's disclosure in order to economically send their higher data rate signal over existing lower data rate telecommunication networks, and thereby avoid constructing expensive specialized high data rate long or short haul networks, or expensive specialized

data rate converters, and provide for a more economic use of the unused capacity of existing networks.

- In regard claim 8, which is a system claim related to claim 2, all limitation is contained in claim 2. The explanation of all the limitation is already addressed in the above paragraph.

Allowable Subject Matter

6. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M Wang whose telephone number is (703) 305-0373. The examiner can normally be reached on 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Ted M Wang
Examiner
Art Unit 2634

Ted M. Wang



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
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